

CLAIMS

1. A dental hand piece, comprising:

5 a casing having an open front end, an air inlet and an air outlet;

a rear bearing inside said casing close to a rear end thereof;

10 an air turbine, having a wheel and a plurality of blades, performing a rotational movement driven by compressed driving air;

a front bearing inside said casing close to said front end thereof;

15 an axis, carrying said air turbine and said rear and front bearings, further having a front end with a central hole;

a drill head, having a rear end that is inserted into said central hole of said axis; and

20 a front lid, set on said open front end of said casing, sealing said casing, with said drill head passing through said front lid.

2. The dental hand piece according to claim 1, wherein said driving air is led to said plurality blades of said air turbine in an axial direction.

25 3. The dental hand piece according to claim 1, wherein between outer peripheries of said front and rear bearings and said casing ring-shaped spaces are left.

4. The dental hand piece according to claim 1, wherein a front deflector is placed in front of said wheel of said air turbine.

30 5. The dental hand piece according to claim 1,

wherein a rear deflector is placed behind said wheel of said air turbine.

5 6. The dental hand piece according to claim 1, wherein front and rear deflectors are respectively placed in front of and behind said wheel of said air turbine.

7. The dental hand piece according to claim 1, wherein a case of said drill head is substituted for said casing and said front lid.

10 8. The dental hand piece according to claim 1, wherein said air inlet is cut through said casing close to said open front end thereof.

9. The dental hand piece according to claim 1, wherein said air outlet is cut through said casing close to a rear end thereof.

15 10. The dental hand piece according to claim 1, wherein said said air inlet reaches to a front ring channel between an outer periphery of said front bearing and said casing.

20 11. The dental hand piece according to claim 1, wherein said air outlet reaches to a rear ring channel between an outer periphery of said rear bearing and said casing.

25 12. The dental hand piece according to claim 10, wherein a sealing ring is inserted between said drill head and said air outlet, preventing any fluid or gas from said drill head to flow into said air outlet.

13. The dental hand piece according to claim 10, wherein said air inlet and said air outlet are respectively placed on two opposite sides of said air turbine.